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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,399	12/05/2006	Stefan Hummel	12841/7	1671

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EXAMINER	
YEAGLEY, DANIEL S	
ART UNIT	PAPER NUMBER
3611	
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11/17/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/549,399	HUMMEL ET AL.	
	Examiner	Art Unit	
	Daniel Yeagley	3611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 August 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 September 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/28/09, 10/14/09.*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11 – 13, 16 – 18, 20, 21, 23 and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Bergh 5,244,226.

Bergh discloses a steering device for a vehicle which comprises electronic control device and sensors (figure 8, column 1 – 8), wherein sensors monitor combinations of current driving state values and are connected to the electronic control device (figure 7), such that the control device actuates a locking device which locks a pair of wheels 50 when a minimum velocity of the vehicle is exceeded (column 5), wherein driving state values (set points) are characterized critical driving situations that are stored in the control device (column 8), such that a steered position of the pair of wheels is locked in critical driving situations; such as when the speed exceeds a set point, and after a critical driving situation; such as when driving below the first set point releases the pair of wheels, but not until a predefined critical driving state values are undershoot at least for a predefined period of time (range of time within the predefined dead band region; the period of time required to slow the vehicle to a predefined second set point value).

The steering device of Bergh is steered freely and is lockable as a function of combinations of driving state values of the vehicle, wherein the steering device can be locked by an electronically actuated locking device when a minimum velocity of a vehicle is exceeded (first set point, column 5 – 6, column 8, line 9-14) and does not release the pair of wheels again until predefined critical driving state values are undershot (speed falls below the first set point value) and hold the pair of wheels in the locked state at least for a predefined period of time needed to reach a second set point to avoid unnecessary switching around the first set point value (column 8, line 14 - 20).

Wherein the locking device of Bergh is one of hydraulically actuatable, the control means of Bergh is such that the electronic control device stores a combinations of driving state values for use in the electronic control device that characterize critical driving situations that are present when a vehicle tends to oversteer and is integrated into an electronic driving stability system that activates the locking device at the same time as a vehicles' engine torque intervention or braking intervention controlled by the vehicles' electronic driving stability system is activated. The steering device of Bergh further shows each wheel 50 of the pair of wheels being arranged on opposite sides of the vehicle (figure 5), each wheel includes a steering lever 66 articulately connected to one another by a track rod 64 and a locking lever 72 which lengthens the steering lever and acts on the locking device.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergh '226; in view of Buelt 6,105,981.

Bergh discloses a steering device having a pair of freely steered wheels being locked by a locking device actuated by one of a hydraulic fluid actuating means as stated above, but failed to disclose the actuating means being pneumatic fluid means.

Buelt discloses a steering device for a vehicle (figure 8) having a pair of freely steered wheels locked by actuated locking devices, wherein Buelt further discloses the prior art of utilizing any common means for actuating a locking device; such as hydraulic, electric or manually, but preferably actuated pneumatically; as suggested in column 7 and 9.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have replaced the hydraulic actuation means of Bergh, with any commonly known means for actuating a device, such as an electric actuation, a manual actuation, or preferably a pneumatic actuation as suggested by Buelt pneumatically operated actuating means, which would equally provide a more simple less complex actuating system for actuating the steering device of Bergh and would be a simple matter of design choice dependent upon user preference.

5. Claims 14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergh '226.

Bergh; as stated above, discloses a steering device having a pair of freely steered wheels locked by a locking device actuated by one of a hydraulic fluid actuating means, which does not release the pair of wheels again until predefined critical driving state values are undershot at least for a predefined period of time (range of time within the dead band region), but was silent with regards to the particular period of time elapsed within the dead band region to reduce the speed below the critical driving state values. Bergh discloses the claimed invention except for the time range of 3 to 5 seconds.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized a 3 – 5 second range of a dead band region or any other period of elapsed time in the dead band region needed to adequately provide enough time lapse between the set point values to avoid unnecessary switching of the locking device; as suggested by Bergh time lapse provide by Bergh's dead band region, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering an optimum or workable range involves only routine skill in the art. In re Aller, 105 USPQ 233. Further; a time delay in a control function device using a preset period of time of a three to five second delay are known in the control art for also providing sufficient duration of time to alert an operator of a pending control change; see Cheng 2004/0150513, also for providing for period of elapsed time (lockout time) to provide a safety factor in an electronic control unit to recover from strong radio frequency fields; see Becker, Jr. 4,996,525, and is also a characteristic range of a time delay period of 3 – 5 seconds for timing logic circuits, amplifiers, servomotors and relay circuits in common electronic control devices which permit a predefined period of elapsed time delay in the

operation of a control device to provide sufficient time lapse for controlling valves and other control devices in an actuated system; see for example, Mittal 4,782,878 and Wurst 3,222,640.

Response to Arguments

6. Applicant's arguments filed 8/7/09 have been fully considered but they are not persuasive. Applicants' argument that Bergh's elapsed time of the control device is not a "predefined time period" is not persuasive. The examiner disagrees with applicant perception of Bergh. As stated above in the rejection; Bergh's clearly uses predefined set point values generating the range that creates the dead band region for the control of Bergh locking means to cut-in and cut-out, wherein the dead band region is directly proportional to a period of time it takes to reduce the speed which provides a time delay set by a lower predefined set point value and the time period generated in this dead band between these set point values are directly dependent upon and proportional to the set point values. Wherein the period of time elapsed within Bergh's dead band region of the control device directly correlates with a predefined span of the set point values in which the control device waits before releasing the locked wheels and reengaging the steering; which is readable on the claim as broadly recited. Contrary to applicants' argument; that the device of Bergh does not wait a predefined period of time before reengaging a steering; but is immediately reengaged, is not persuasive. Bergh steering is not immediately reengaged when the first set point is reached, but is delayed until the control reaches a lower set point value before reengaging the steering.

In response to applicant's argument that there is no motivation or suggestion to combine, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Buelt clearly suggests a preference of preferably using a pneumatic system to actuate a device over a hydraulic, electric, or a manual actuation means which are all well known means and old in the art for providing a means for actuation of a device and establishes a prima facie case of obviousness.

In response to applicant's argument that the examiner's conclusion of obviousness is based on assertions and/or contentions supported by Official Notice is noted, however Official Notice was not cited in the obvious rejection of the prior office action. The examiner however has further solidified the rejection of the obviousness rejections under 103(a); as stated above, by further explanation and representation of specific reasoning and evidence to support the obviousness rejection to address applicants' argument.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kee et al '939 discloses a steering device for a vehicle with a self-steering locking device and control means.

Cheng '513, Becker, Jr. '525, Mittal '878 and Wurst '640 disclose a predefined period of time of 3 – 5 seconds for a control function in an electronic control device.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Yeagley whose telephone number is (571)272-6655. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lesley Morris can be reached on (571) - 272 - 6651. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

D.Y.

/LESLEY D MORRIS/
Supervisory Patent Examiner, Art Unit 3611